

REMARKS

Status of the Claims

The present Office Action addresses and rejects claims 1, 3, 4, 6, 7, 12, 14-18, 20-22, and 26.

At the outset, Applicant notes that the Office Action Summary does not list claims 8 and 9 as pending. Because the body of the Office Action addresses and rejects claim 8 and 9, Applicant will consider claims 8 and 9 as pending and respectfully requests the Examiner to correct Applicant if that is incorrect.

Reconsideration is respectfully requested in view of the following remarks.

Amendments to the Claims

Claims 16 and 26 are amended to correct typographical errors, and claim 22 is amended to delete reference to the cavity. Claim 17 is cancelled. No new matter is added.

Objections to the Claims

Claim 17 has been objected to as being of improper dependent form, and claim 16 has been objected to for a typographical informality. As mentioned above, claim 16 is amended and claim 17 is cancelled, thereby obviating the Examiner's objections.

Rejections Pursuant to 35 U.S.C. §103

Claims 1, 3, 4, 6-9, 12, 14-16, 18, 20-22, and 26 are rejected pursuant to 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,551,316 of Rinner et al. ("Rinner") in view of U.S. Patent No. 6,261,296 of Aebi et al. ("Aebi").

In relevant part, independent claims 1, 16, 22, and 26 each recite a locking mechanism that is *at the receiving component* for securing the tip to the receiving component and that engages *at least two outer surfaces* of a mating component. The Examiner argues that Rinner includes a locking mechanism 76, 77 that "is slideably moveable to and from a locked position while the locking mechanism engages at least two outer surfaces (opposite sides of the locking mechanism provides two surfaces) of the mating component" 71. Office Action, pp. 3-4. Applicant respectfully disagrees.

As clearly shown in Figures 8 and 13, reproduced below, the pin 76 and the spring 77 that the Examiner likens to the locking mechanism are disposed within the an end 71 of tip 13, which the Examiner likens to a mating component. The pin 76 and spring 77 are thus not *at the receiving component* but instead at the mating component.



Additionally, neither the pin 76 nor the spring 77 engage at least two outer surfaces of the mating component. The pin 76 is slideably moveable up and down (relative to the position shown in Figure 8) to and from a locked position, with the spring 77 providing appropriate biasing force to the pin 76. The spring 77, however, is disposed within the tip 13 and has fixed ends within the tip's end 71 so the spring 77 can adequately compress to provide such biasing force. The spring 77 clearly does not engage any outer surface of the end 71, much less at least two outer surfaces. The pin 76 also does not engage at least two outer surfaces of the mating component. As clearly illustrated, the pin 76 can extend through one surface of the tip end 71 while otherwise being completely disposed within the end 71. At best, the pin 76 could be considered to engage the surface of the end 71 it extends through, but that is one surface and not at least two outer surfaces. Even if the spring 77 is included as part of the locking mechanism along with the pin 76, because the spring 77 is completely disposed within the mating component 71 and thus necessarily does not engage any outer surface of the end 71, the pin 76 and the spring 77 together at best still only engage one surface of the end 71.

Aebi does not remedy the deficiencies of Rinner as Aebi is relied on for various other features and does not disclose such a locking mechanism.

Accordingly, independent claims 1, 16, 22, and 26, and dependent claims 3, 4, 6-9, 12, 14-16, 18, 20, and 21 which variously depend therefrom, distinguish over Rinner and Aebi, either taken alone or together, and represent allowable subject matter.

Independent claims 22 and 26 distinguish over Rinner and Aebi for additional reasons, including those discussed in more detail below.

Claim 22

Independent claim 22 recites an attachment mechanism for a device including a modular tip that includes a u-shaped mating component with a recess formed therein, a receiving component having a connecting member that is configured to be received in the recess in the u-shaped mating component, the receiving component configured to be coupled in a rigid manner to the mating component in two or less orientations, and a locking mechanism at the receiving component for securing the u-shaped mating component to the receiving component, the locking mechanism slideably moveable to and from a locked position, wherein the locking mechanism engages at least two outer surfaces of the mating component.

Rinner does not disclose a *u-shaped* mating component. Rinner's mating component 71 is clearly a rectangular block that does not have a u-shape.

Furthermore, the Examiner relies on Rinner to teach the claimed invention but admits that Rinner fails to teach a recess formed in the u-shaped mating component of the modular tip. The Examiner thus relies on Aebi for this feature, arguing that "[i]t would have been obvious to one of ordinary skill in the art to have created the device of Rinner et al. with ... a recess formed in the mating component in view of Aebi et al., in order to have a device with greater versatility." Office Action, p. 4. However, Aebi also fails to disclose a recess formed in the u-shaped mating component of the modular tip.

Aebi discloses a blade 44 ("modular tip"), that can be removably coupled to a jaw 14 ("receiving component") by inserting a post 62 ("mating component") of the blade 44 into a bore 60 of the jaw 14. The post 62 has a depression 64 ("recess") for receiving a ball 66 ("connecting member") housed in the jaw 14. *See* Col. 6, lines 50-64. However, the post 62 is not u-shaped. The post 62 (misnumbered 42) is clearly shown in Figure 8, reproduced at right, as a rectangular block. The depression 64 does not render the post 62 u-shaped because the depression 64 in the post 62 is merely a circular indentation in one side surface of the post 62 as shown with a dotted line, not a solid line, indicating that the depression 64 is *within* the post 62. The depression 64 is clearly limited to one side surface of the post 62 and does not extend through more than one surface of the post 62 so as to form a u-shaped mating component. Indeed, for

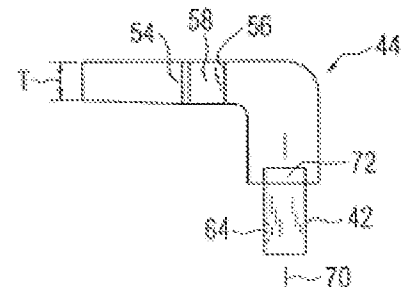


FIG. 8

the ball 66 to be matingly received in the depression 64, the depression 64 has to be a circular indentation in the post's side, which does not make the post 62 u-shaped. Therefore, even if Aebi could be combined with Rinner, the resulting attachment mechanism would still not include a modular tip including a u-shaped mating component with a recess formed therein.

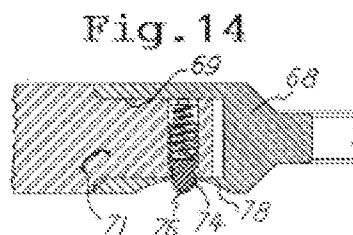
Accordingly, independent claim 22 distinguishes over Rinner and Aebi, either taken alone or together, and represents allowable subject matter.

Claim 26

At the outset, Applicant notes that while the §103 rejection of claim 26 indicates that the Examiner intended to reject claim 26 over Rinner in view of Aebi, Applicant can find no portion of Aebi relied on by the Examiner in his rejection of claim 26. Aebi is cited on page 4 of the Office Action only for features in other independent claims. Applicant respectfully requests the Examiner to clarify the rejection of claim 26 if it is intended to be over Rinner in view of Aebi by particularly pointing out the portion of Aebi relied on to help establish a clear issue between the Examiner and Applicant.

Independent claim 26 recites a surgical instrument including a receiving component having a longitudinal axis and defining a cavity, a modular tip that includes a mating component configured to be coupled in a rigid manner to the receiving component in two or less orientations, a locking mechanism at the receiving component for securing the tip to the receiving component, and a spring that applies a biasing force along the longitudinal axis to the locking mechanism to maintain the locking mechanism in a locked position. The locking mechanism extends through the cavity, is slideably moveable to and from a locked position, and engages at least two surfaces of the mating component.

Rinner does not teach or suggest a spring that applies a biasing force along the longitudinal axis to the locking mechanism to maintain the locking mechanism in a locked position. As clearly seen in Figure 14 of Rinner, reproduced below, the spring 77 biases the pin 76 *perpendicular* to the longitudinal axis of the receiving component 68, not *along* the longitudinal axis of the receiving component.



Aebi does not remedy the deficiencies of Rinner because Aebi does not disclose a spring.

Accordingly, independent claim 26 distinguishes over Rinner and Aebi, either taken alone or together, and represents allowable subject matter.

Conclusion

Applicant submits that all claims are in condition for allowance, and allowance thereof is respectfully requested. Applicant's amendment of the claims does not constitute a concession that the claims are not allowable in their unamended form. The Examiner is encouraged to telephone the undersigned attorney for Applicant if such communication is deemed to expedite prosecution of this application.

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Respectfully submitted,

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